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DIVISION OF WATER  
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FRANKFORT, KENTUCKY 40601  
[www.kentucky.gov](http://www.kentucky.gov)

LEONARD K. PETERS  
SECRETARY

**FACT SHEET**

**KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM  
PERMIT TO DISCHARGE TREATED WASTEWATER  
INTO WATERS OF THE COMMONWEALTH**

KPDES No.: KY0094706      Permit Writer: Ronnie Thompson      Date: February 11, 2010  
AI No.: 3980

1. **SYNOPSIS OF APPLICATION**

a. Name and Address of Applicant

Pilot Travel Centers, LLC  
5508 Lonas Road  
Knoxville, Tennessee 37909

b. Facility Location

Pilot Travel Center No. 046  
2929 Scottsville Road  
Franklin, Simpson County, Kentucky

c. Description of Applicant's Operation

Pilot Travel Center No. 046 conducts retail sales of diesel fuel and gasoline, as well as operates a convenience store and restaurant (SIC Code 5541).

d. Production Capacity of Facility

N/A

e. Description of Existing Pollution Abatement Facilities

Outfall 001 - Storm water runoff from the fueling areas and diesel island rinse water is treated by an oil/water separator and a retention pond. Storm water runoff from other areas is treated by the retention pond only.

f. Permitting Action

This is a reissuance of a minor KPDES permit for a retail fuel service station, convenience store and restaurant.

2. **RECEIVING WATER**

a. Name/Mile Point

Facility discharges to an unnamed tributary of West Fork Drakes Creek via sinkhole at latitude 36-42-59 and longitude 86-31-30.

b. Stream Segment Use Classification

Pursuant to 401 KAR 10:026, Section 5, the unnamed tributary of West Fork Drakes Creek carries the following classifications: Warmwater Aquatic Habitat, Primary/Secondary Contact Recreation and Domestic Water Supply.

c. Stream Segment Categorization

Pursuant to 401 KAR 10:030, Section 1, the unnamed tributary of West Fork Drakes Creek is categorized as "High Quality Waters".

d. Stream Low Flow Condition

The 7-day, 10-year low flow and harmonic mean conditions of the unnamed tributary of West Fork Drakes Creek are assumed to be 0 cfs.

### 3. REPORTED DISCHARGE AND PROPOSED LIMITS

Description of Discharge - Storm water runoff and diesel island rinse water.

Effluent Characteristics	Reported Discharge		Proposed Limits		Applicable Water Quality Criteria and/or Effluent Guidelines
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	
Flow (MGD)	0.153	2.610	Report	Report	401 KAR 5:065, Section 2(4) 40 CFR 122.44(i)(1)(ii)
Total Suspended Solids (mg/l)	22	67	30	60	401 KAR 5:080, Section 2(3) 40 CFR 125.3
Oil & Grease (mg/l)	5	11	10	15	401 KAR 5:080, Section 2(3) 40 CFR 125.3
Total Recoverable Zinc (mg/l)	0.174	0.740	N/A	0.12	401 KAR 10:031, Section 4
pH (standard units)	6.8	9.0	6.0 (min)	9.0 (max)	401 KAR 10:031, Section 4

The data contained under the reported discharge columns is not from the renewal application, but rather from the analysis of the DMR data that has been reported during the term of the previous permit.

The abbreviation N/A means Not Applicable.

4. **METHODOLOGY USED IN DETERMINING LIMITATIONS**

a. Serial Number

Outfall 001 - Storm water runoff from 1.8 acres, all of which is impervious and diesel island rinse water.

b. Effluent Characteristics

Flow, Total Suspended Solids, Oil & Grease, Total Recoverable Zinc and pH

c. Pertinent Factors

A summarization of the water quality standards, assumptions, and calculations can be found in Attachment A - SSTWAM2004 for Pilot Travel Center No. 046.

d. Monitoring Requirements

Flow monitoring shall be conducted once per month instantaneously.

Total Suspended Solids, Oil & Grease and Total Recoverable Zinc shall be monitored once per month by grab sample.

pH shall be monitored once per month by grab sample.

e. Justification of Conditions

The Kentucky regulations cited below have been duly promulgated pursuant to the requirements of Chapter 224 of the Kentucky Revised Statutes.

Flow

The monitoring requirements for this parameter are consistent with the requirements of 401 KAR 5:065, Section 2(4).

Total Suspended Solids and Oil & Grease

The limits for these parameters are consistent with the requirements of 40 CFR 125.3(c)(2) as incorporated by reference in 401 KAR 5:080, Section 2(3). The limits are representative of the Division of Water's "Best Professional Judgment" (BPJ) determination of the "Best Conventional Pollutant Control Technology" (BCT) requirements for these pollutants.

Total Recoverable Zinc

The limits for this parameter are consistent with the requirements of 401 KAR 5:031, Section 4. The previous permit contained a monitoring requirement but no effluent limitations. Utilizing data from the Discharge Monitoring Reports (DMRs), the Division of Water calculated expected effluent limitations and performed a reasonable potential analysis. The results of this analysis can be found in Attachment A. Based on these results, effluent limitations are required for this parameter. The limits were developed using SSTWAM2004 water quality modeling. Because the discharge consists of storm water only, the monthly average limitation will not be used.

pH

The limits for this parameter are consistent with the requirements of 401 KAR 10:031, Section 4.

5. **ANTIDEGRADATION**

The conditions of 401 KAR 10:029, Section 1 have been satisfied by this permit action. Since this permit action involves reissuance of an existing permit, and does not propose an expanded discharge, a review under 401 KAR 10:030 Section 1 is not applicable.

6. **PROPOSED COMPLIANCE SCHEDULE FOR ATTAINING EFFLUENT LIMITATIONS**

The permittee will comply with all effluent limitations by the effective date of the permit.

7. **PROPOSED SPECIAL CONDITIONS WHICH WILL HAVE A SIGNIFICANT IMPACT ON THE DISCHARGE**

**Best Management Practices (BMP) Plan**

Pursuant to 401 KAR 5:065, Section 2(10), a BMP requirement shall be included: to control or abate the discharge of pollutants from ancillary areas containing toxic or hazardous substances or those substances which could result in an environmental emergency; where numeric effluent limitations are infeasible; or to carry out the purposes and intent of KRS 224. The facility has several areas where support activities occur which have a potential of the discharge of such substances through storm water runoff or spillage. Some of these areas will drain to present wastewater treatment plants, others will not.

**Outfall Signage**

The KPDES permit establishes monitoring points, effluent limitations, and other conditions to address discharges from the permitted facility pursuant 40 CFR 122.48. In an effort to better document and clarify these locations the permittee should place and maintain a permanent marker at each of the monitoring locations.

8. **PERMIT DURATION**

Five (5) years. This facility is in the Tradewater, Green Basin Management Unit as per the Kentucky Watershed Management Framework.

9. **PERMIT INFORMATION**

The application, draft permit, fact sheet, public notice, comments received and additional information is available from the Division of Water at 200 Fair Oaks Lane, Frankfort, Kentucky 40601.

10. **REFERENCES AND CITED DOCUMENTS**

All material and documents referenced or cited in this fact sheet are a part of the permit information as described above and are readily available at the Division of Water Central Office. Information regarding these materials may be obtained from the person listed below.

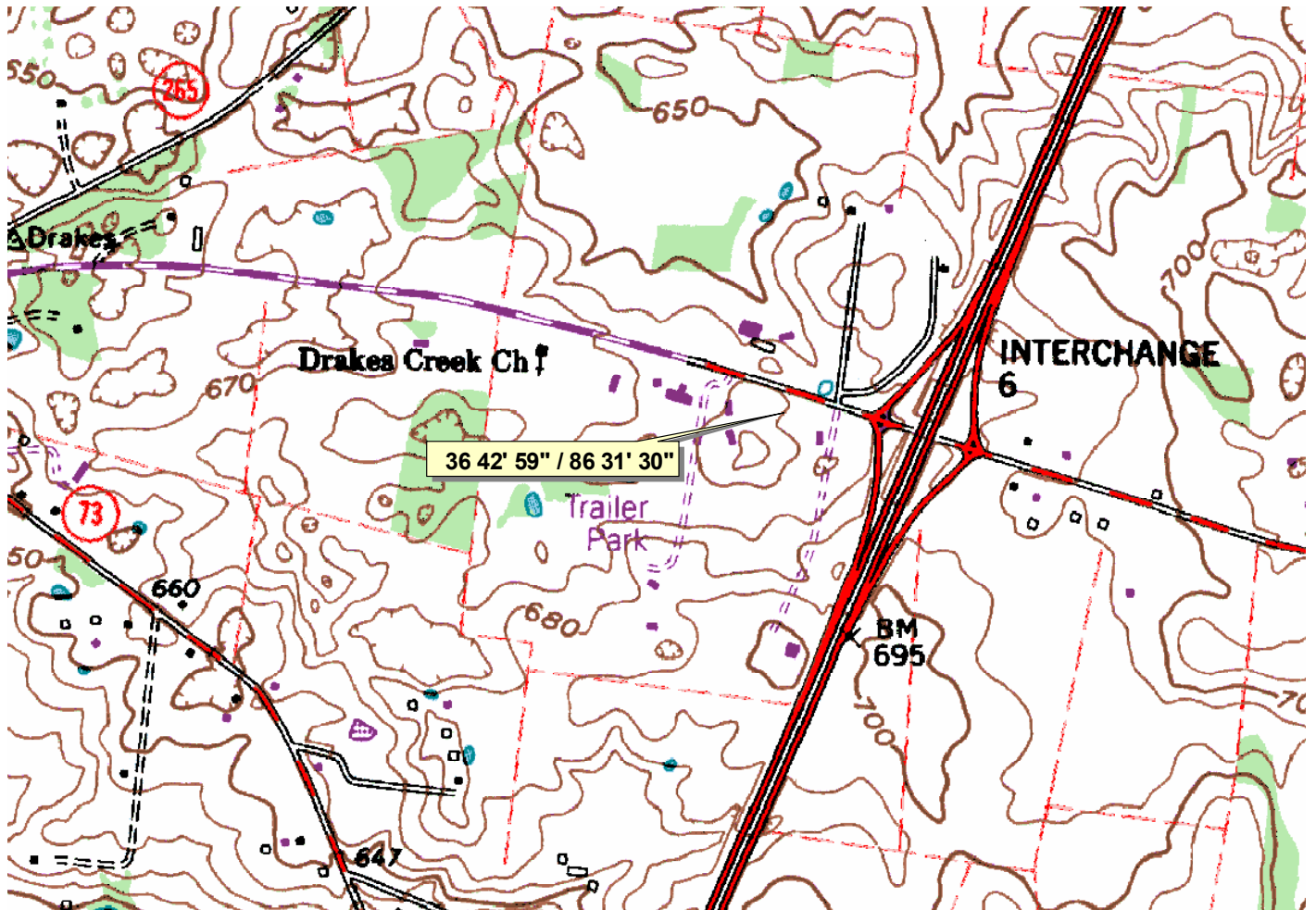
11. **CONTACT**

For further information on the draft permit or comment process, contact the individual identified on the Public Notice or the Permit Writer - Ronnie Thompson at (502) 564-8158, extension 4896, or email [Ronnie.Thompson@ky.gov](mailto:Ronnie.Thompson@ky.gov).

12. **PUBLIC NOTICE INFORMATION**

Please refer to the attached Public Notice for details regarding the procedures for a final decision, deadline for comments and other information required by 401 KAR 5:075, Section 4(2)(e).

## Pilot Travel Center No. 046



**STEADY STATE TOXICS WASTELOAD ALLOCATION MODEL (SSTWAM2004) – REASONABLE POTENTIAL ANALYSIS – OUTFALL 001**

Permit Writer	Thompson	
Date Entered	2/11/2010	
Facility Name	Pilot Travel Centers	
KPDES Number	No 046	
Outfall Number	KY0094706	
Case	001	
Status:	Reissuance	
Is this an existing facility – Enter “E”	E	
Is this an existing facility with an increase in pollutant load – Enter “I”	UT of West Fork	
Is this a new facility – Enter “N”	Drakes Creek	
Is this a regional facility with an approved up-to-date 201 plan – Enter “R”	48.1	
Has the permittee made a successful alternatives analysis/socioeconomic demonstration – Enter “A”	Franklin Water	
Receiving Water Name	Works	
Discharge Mile Point	West Fork Drakes	
Public Water Supply Name	Creek	
Intake Water Name	46.9	
Intake Mile Point	0.15341	MGD
Total Effluent Flow ( $Q_T$ )	0	cfs
Receiving Water 7Q10 ( $Q_{RW7Q10}$ )	0	cfs
Receiving Water Harmonic Mean ( $Q_{RWHM}$ )	7.5	SU
Receiving Water pH	20.00	°C
Receiving Water Temperature	0.11	cfs
Intake Water 7Q10 ( $Q_{IW7Q10}$ )	15	cfs
Intake Water Harmonic Mean ( $Q_{IWHM}$ )	100	(as mg/l CaCO <sub>3</sub> )
Effluent Hardness	100	(as mg/l CaCO <sub>3</sub> )
Receiving Water Hardness	1	
Zone of Initial Dilution (ZID)	0	
Mixing Zone (MZ)	0.1	
Acute to Chronic Ratio (ACR)	No	
Impaired	No	
Permittee agrees to accept no mixing zone for bioaccumulative or persistent pollutants prior to 09/08/2014	No	

## STEADY STATE TOXICS WASTELOAD ALLOCATION MODEL (SSTWAM2004) – REASONABLE POTENTIAL ANALYSIS – OUTFALL 001

### Calculation Methodology

#### Definitions

Acute to Chronic Ratio	ACR	Total Effluent Flow	$Q_T$
Aquatic Life Acute Criteria	$C_A$	Receiving Water 7Q10	$Q_{RW7Q10}$
Aquatic Life Chronic Criteria	$C_C$	Receiving Water Harmonic Mean	$Q_{RWHM}$
Human Health Criteria - Fish Only	$C_{HHFO}$	Intake Water 7Q10	$Q_{IW7Q10}$
Human Health Criteria - Fish & Water	$C_{HHFW}$	Intake Water Harmonic Mean	$Q_{IWHM}$
End of Pipe Effluent Limit	$C_T$	Zone of Initial Dilution	ZID
Instream Background Concentration	$C_U$	Mixing Zone	MZ
Toxicity Units - Acute	$TU_a$	Toxicity Units - Chronic	$TU_c$
Effluent Hardness	$H_T$	Receiving Water Hardness	$H_{RW}$

#### Aquatic Life - Chemical Specific

##### Acute

NO ZID given  $C_T = C_A$

ZID given  $C_T = (C_A - C_U) \times (ZID)$

##### Chronic Mixing Zone / Complete Mix

$$C_T = \{C_C[Q_T + (MZ)(Q_{RW7Q10})] - [C_U(MZ)(Q_{RW7Q10})]\} / Q_T$$

#### Human Health - Chemical Specific

##### Fish Only: Mixing Zone / Complete Mix

Carcinogen / Non-Carcinogen  $C_T = \{C_{HHFO}[Q_T + (MZ)(Q_{RW7Q10})] - C_U(MZ)(Q_{RW7Q10})\} / Q_T$

##### Fish & Water Only: Mixing Zone / Applicable at point of withdrawal

Carcinogen  $C_T = \{C_{HHFW}[Q_T + (Q_{IWHM})] - C_U(Q_{IWHM})\} / Q_T$

Non-Carcinogen  $C_T = \{C_{HHFW}[Q_T + (Q_{IW7Q10})] - C_U(Q_{IW7Q10})\} / Q_T$

#### Aquatic Life - Whole Effluent Toxicity

##### Acute (Units $TU_a$ )

NO ZID given  $CT = CA$

ZID given  $C_T = (C_A - C_U) \times (ZID)$

##### Chronic Mixing Zone / Complete Mix (Units $TU_c$ )

$$C_T = \{C_C[Q_T + (MZ)(Q_{RW7Q10})] - [C_U(MZ)(Q_{RW7Q10})]\} / Q_T$$

Conversion of  $TU_c$  to  $TU_a$ :  $TU_c \times ACR = TU_a$



## STEADY STATE TOXICS WASTELOAD ALLOCATION MODEL (SSTWAM2004) – REASONABLE POTENTIAL ANALYSIS – OUTFALL 001

### Metal Aquatic Criteria

#### Pollutant

Total Recoverable Cadmium  
 Chromium III  
 Total Recoverable Copper  
 Total Recoverable Lead  
 Total Recoverable Nickel  
 Total Recoverable Silver  
 Total Recoverable Zinc

#### Acute Criteria

$e^{(1.0166 (\ln \text{Hardness}) - 3.924)}$   
 $e^{(0.8190 (\ln \text{Hardness}) + 3.7256)}$   
 $e^{(0.9422 (\ln \text{Hardness}) - 1.700)}$   
 $e^{(1.273 (\ln \text{Hardness}) - 1.460)}$   
 $e^{(0.8460 (\ln \text{Hardness}) + 2.255)}$   
 $e^{(1.72 (\ln \text{Hardness}) - 6.59)}$   
 $e^{(0.8473 (\ln \text{Hardness}) + 0.884)}$

#### Chronic Criteria

$e^{(0.7409 (\ln \text{Hardness}) - 4.719)}$   
 $e^{(0.8190 (\ln \text{Hardness}) + 0.6848)}$   
 $e^{(0.8545 (\ln \text{Hardness}) - 1.702)}$   
 $e^{(1.273 (\ln \text{Hardness}) - 4.705)}$   
 $e^{(0.8460 (\ln \text{Hardness}) + 0.0584)}$   
 $e^{(0.8473 (\ln \text{Hardness}) + 0.884)}$

#### Hardness (as mg/l CaCO<sub>3</sub>)

Zone Initial Dilution (ZID)  
 Mixing Zone

$$H_{RW} + [H_T + H_{RW}]/ZID$$

$$[(Q_{RW7Q10})(MZ)(H_{RW}) + (Q_T)(H_T)]/[(Q_{RW7Q10})(MZ) + (Q_T)]$$

#### Total Ammonia Criteria

**Chronic - applies state wide - unionized criteria of 0.05 mg/l °C**

$$[0.05 * (1 + 10^{(pKa - pH)})]/1.2 \quad pKa = (0.0902 + (2730/(273.1 + T))) \quad T = \text{Temperature}$$

**Acute - applies to the Ohio River (ORSANCO Criteria)**

$$[0.411 / (1 + 10^{(7.204 - pH)})] + [58.4 / (1 + 10^{(pH - 7.204)})]$$

### Bioaccumulative or Persistent

For new facilities after September 8, 2004 mixing zones shall not be granted for bioaccumulative or persistent pollutants of concern.

Mixing zones for bioaccumulative or persistent pollutants of concerned assigned prior to September 8, 2004 shall expire no later than September 8, 2014, unless the permittee agrees to expiration of the mixing zone prior to that date.

Therefore, the application of the more stringent criteria of Human Health Fish & Water Consumption, Human Health Fish Only Consumption, and Aquatic Life Chronic shall apply as end-of-pipe effluent limitations.

### Antidegradation

If a new facility or an existing facility that will have a pollutant load increase, the effluent limits are halved unless the receiving stream is impaired or the permittee has demonstrated a negative socioeconomic or cost benefit analysis.

## **STEADY STATE TOXICS WASTELOAD ALLOCATION MODEL (SSTWAM2004) – REASONABLE POTENTIAL ANALYSIS – OUTFALL 001**

### **Reasonable Potential Analysis**

In establishing water quality based effluent conditions the Division of Water must determine if the pollutant concentrations in the discharge will cause, have the reasonable potential to cause, or contribute to an excursion of any water standard. The process by which the Division of Water makes this determination is known as a Reasonable Potential Analysis.

A Reasonable Potential Analysis is performed by first calculating the expected effluent limitations for those pollutants with water quality criteria. The calculated limits are then compared to the concentrations reported on the KPDES permit application and/or a summarization of the values reported on the Discharge Monitoring Report (DMRs) submitted during the term of the permit. This comparison is made by dividing the reported value by the calculated effluent limitation and converting to a percentage. The following criteria are used in determining how the pollutant will be addressed in the permit.

### **New Permits or New Pollutants on Permit Renewals**

If the reported concentration is less than 70% of the calculated effluent limit then no monitoring or limitations will be required.

If the reported concentration is equal to or greater than 70% but less than 90% of the calculated effluent limit then monitoring will be required.

If the reported concentration is equal to or greater than 90% and the number of analysis reported on the KPDES permit application is less than 12 then monitoring will be required.

If the reported concentration is equal to or greater than 90% and the number of analysis reported on the KPDES permit application is equal or greater than 12 then an effluent limitation will be required.

### **Permit Renewals - Existing Pollutants**

If the reported concentration is less than 70% of the calculated effluent limit then and the source of the reported concentration was the DMRs for that facility and there were more than 12 DMRs utilized to determine the reported concentrations then the pollutant will be removed from the permit.

If the reported concentration is equal to or greater than 70% but less than 90% of the calculated effluent limit then monitoring will be required.

If the reported concentration is equal to or greater than 90% then an effluent limitation will be required.

In all cases, the Division of Water still may exercise its Best Professional Judgment in the implementation of the results.

**STEADY STATE TOXICS WASTELOAD ALLOCATION MODEL (SSTWAM2004) – REASONABLE POTENTIAL ANALYSIS – OUTFALL 001**

Parameter	CAS Number	Reported Discharge (mg/l)		Calculated Effluent Limitations (mg/l)		Reasonable Potential		Data Source	No. of Samples	Effluent Requirement		Justification	
		Average	Maximum	Average	Maximum	Average	Maximum			Average	Maximum	Average	Max
Chloride	16887006	0.000000	0.000000	365.800795	1,200.000000	0.00%	0.00%	No Data	0	None	None	HH DWS	Acute
Total Residual Chlorine		0.000000	0.000000	0.011000	0.019000	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
Color		0.000000	0.000000	0.109740	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Fluoride		0.000000	0.000000	2.926406	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Nitrate-Nitrite (as N)	14797558	0.000000	0.000000	14.632032	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Total Alpha		0.000000	0.000000	NA	15.000000	0.00%	0.00%	No Data	0	None	None	NA	Acute
Total Beta		0.000000	0.000000	NA	50.000000	0.00%	0.00%	No Data	0	None	None	NA	Acute
Total Radium		0.000000	0.000000	NA	5.000000	0.00%	0.00%	No Data	0	None	None	NA	Acute
Sulfate (as SO4)		0.000000	0.000000	365.800795	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Surfactants		0.000000	0.000000	0.731602	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Total Recoverable Barium	7440393	0.000000	0.000000	1.463203	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Total Recoverable Iron	7439896	0.000000	0.000000	1.000000	4.000000	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
Total Recoverable Antimony	7440360	0.000000	0.000000	0.008194	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Total Recoverable Arsenic	7440382	0.000000	0.000000	0.150000	0.340000	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
Total Recoverable Beryllium	7440417	0.000000	0.000000	0.005853	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Total Recoverable Cadmium	7440439	0.000000	0.000000	0.000271	0.002133	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
Total Recoverable Chromium	7440439	0.000000	0.000000	0.146320	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Total Recoverable Copper	7440508	0.000000	0.000000	0.009329	0.013999	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
Total Recoverable Lead	7439921	0.000000	0.000000	0.003182	0.081645	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
Total Recoverable Mercury	7439976	0.000000	0.000000	0.000051	0.001700	0.00%	0.00%	No Data	0	None	None	HH Fish	Acute
Total Recoverable Nickel	7440020	0.000000	0.000000	0.052163	0.469174	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
Total Recoverable Selenium	7782492	0.000000	0.000000	0.005000	0.020000	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
Total Recoverable Silver	7440224	0.000000	0.000000	NA	0.003784	0.00%	0.00%	No Data	0	None	None	NA	Acute
Total Recoverable Thallium	7440280	0.000000	0.000000	0.002487	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Total Recoverable Zinc	7440666	0.174000	0.174000	0.119816	0.119816	145.22%	145.22%	DMR	8	Limit	Limit	Chronic	Acute
Free Cyanide	57125	0.000000	0.000000	0.005200	0.022000	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
2,3,7,8 Tetrachlorodibenzo P Dioxin	1746016	0.000000	0.000000	0.000000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Acrolein	107028	0.000000	0.000000	0.278009	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Acrylonitrile	107131	0.000000	0.000000	0.000250	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Benzene	71432	0.000000	0.000000	0.051000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Bromoform	75252	0.000000	0.000000	0.140000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Carbon Tetrachloride	56235	0.000000	0.000000	0.001600	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Chlorobenzene	108907	0.000000	0.000000	0.994978	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Chlorodibromomethane	124481	0.000000	0.000000	0.013000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Chloroform	67663	0.000000	0.000000	0.365735	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Dichlorobromomethane	75274	0.000000	0.000000	0.017000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
1,2-Dichloroethane	107062	0.000000	0.000000	0.024382	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
1,1-Dichloroethylene	75354	0.000000	0.000000	0.003200	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
1,2-Dichloropropane	78875	0.000000	0.000000	0.003208	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
1,3-Dichloropropene	542756	0.000000	0.000000	0.014632	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Ethylbenzene	100414	0.000000	0.000000	4.535930	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Methyl Bromide	74839	0.000000	0.000000	0.068771	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Methylene Chloride	75092	0.000000	0.000000	0.295155	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA

**STEADY STATE TOXICS WASTELOAD ALLOCATION MODEL (SSTWAM2004) – REASONABLE POTENTIAL ANALYSIS – OUTFALL 001**

Parameter	CAS Number	Reported Discharge (mg/l)		Calculated Effluent Limitations (mg/l)		Reasonable Potential		Data Source	No. of Samples	Effluent Requirement		Justification	
		Average	Maximum	Average	Maximum	Average	Maximum			Average	Maximum	Average	Max
1,1,2,2-Tetrachloroethane	79345	0.000000	0.000000	0.004000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Tetrachloroethylene	127184	0.000000	0.000000	0.003300	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Toluene	108883	0.000000	0.000000	9.949782	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
1,2-Trans-Dichloroethylene	156605	0.000000	0.000000	44.914849	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
1,1,1-Trichloroethane	71556	0.000000	0.000000	0.292641	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
1,1,2-Trichloroethane	79005	0.000000	0.000000	0.016000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Trichloroethylene	79016	0.000000	0.000000	0.030000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Vinyl Chloride	75014	0.000000	0.000000	0.128328	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
2-Chlorophenol	95578	0.000000	0.000000	0.118519	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
2,4-Dichlorophenol	120832	0.000000	0.000000	0.112667	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
2,4-Dimethylphenol	105679	0.000000	0.000000	0.556017	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
2,4-Dinitrophenol	51285	0.000000	0.000000	0.100961	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Pentachlorophenol	87865	0.000000	0.000000	0.003000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Phenol	108952	0.000000	0.000000	30.727267	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
2,4,6-Trichlorophenol	88062	0.000000	0.000000	0.002400	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Acenaphthene	83329	0.000000	0.000000	0.980346	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Anthracene	120127	0.000000	0.000000	12.144586	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Benzidine	92875	0.000000	0.000000	0.000000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Benzo(a)anthracene	56553	0.000000	0.000000	0.000018	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Benzo(a)pyrene	50328	0.000000	0.000000	0.000018	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Benzo(k)fluoranthene	205992	0.000000	0.000000	0.000018	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Bis(2-chloroisopropyl)ether	108601	0.000000	0.000000	2.048484	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Bis(2-ethylhexyl)phthalate	117817	0.000000	0.000000	0.002200	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Butylbenzyl phthalate	85687	0.000000	0.000000	1.900000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
2-Chloronaphthalene	91587	0.000000	0.000000	1.463203	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Chrysene	218019	0.000000	0.000000	0.000018	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Dibenzo(a,h)anthracene	53703	0.000000	0.000000	0.000018	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
1,2-Dichlorobenzene	95501	0.000000	0.000000	3.950649	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
1,3-Dichlorobenzene	541731	0.000000	0.000000	0.468225	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
1,4-Dichlorobenzene	106467	0.000000	0.000000	0.585281	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
3,3-Dichlorobenzidine	91941	0.000000	0.000000	0.000028	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Diethyl phthalate	84662	0.000000	0.000000	24.874454	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Dimethyl phthalate	131113	0.000000	0.000000	395.064859	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Di-n-butyl phthalate	84742	0.000000	0.000000	2.926406	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
2,4-Dinitrotoluene	121142	0.000000	0.000000	0.003400	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
1,2-Diphenylhydrazine	122667	0.000000	0.000000	0.000200	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Fluoranthene	206440	0.000000	0.000000	0.140000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Fluorene	86737	0.000000	0.000000	1.609523	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Hexachlorobenzene	118741	0.000000	0.000000	0.000000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Hexachlorobutadiene	87683	0.000000	0.000000	0.018000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Hexachlorocyclopentadiene	77474	0.000000	0.000000	0.351169	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Hexachloroethane	67721	0.000000	0.000000	0.003300	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Ideno(1,2,3-cd)pyrene	193395	0.000000	0.000000	0.000006	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA

**STEADY STATE TOXICS WASTELOAD ALLOCATION MODEL (SSTWAM2004) – REASONABLE POTENTIAL ANALYSIS – OUTFALL 001**

Parameter	CAS Number	Reported Discharge (mg/l)		Calculated Effluent Limitations (mg/l)		Reasonable Potential		Data Source	No. of Samples	Effluent Requirement		Justification	
		Average	Maximum	Average	Maximum	Average	Maximum			Average	Maximum	Average	Max
Isophorone	78591	0.000000	0.000000	0.051212	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Nitrobenzene	98953	0.000000	0.000000	0.024874	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
N-Nitrosodimethylamine	62759	0.000000	0.000000	0.000044	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
N-Nitrosodi-n-Propylamine	621647	0.000000	0.000000	0.000321	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
N-Nitrosodiphenylamine	86306	0.000000	0.000000	0.006000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Pyrene	129000	0.000000	0.000000	1.214459	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
1,2,4-Trichlorobenzene	120821	0.000000	0.000000	0.380433	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Aldrin	309002	0.000000	0.000000	0.000000	0.003000	0.00%	0.00%	No Data	0	None	None	HH Fish	Acute
alpha-BHC	319846	0.000000	0.000000	0.000005	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Beta-BHC	319857	0.000000	0.000000	0.000017	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
gamma-BHC (Lindane)	58899	0.000000	0.000000	0.000063	0.000950	0.00%	0.00%	No Data	0	None	None	HH Fish	Acute
Chlordane	57749	0.000000	0.000000	0.000001	0.002400	0.00%	0.00%	No Data	0	None	None	HH Fish	Acute
4,4'-DDT	50293	0.000000	0.000000	0.000000	0.001100	0.00%	0.00%	No Data	0	None	None	HH Fish	Acute
4,4'-DDE	72559	0.000000	0.000000	0.000000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
4,4'-DDD	72548	0.000000	0.000000	0.000000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Dieldrin	60571	0.000000	0.000000	0.000000	0.000240	0.00%	0.00%	No Data	0	None	None	HH Fish	Acute
Alpha-Endosulfan	959988	0.000000	0.000000	0.000056	0.000220	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
Beta-Endosulfan	33213659	0.000000	0.000000	0.000056	0.000220	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
Endosulfan sulfate	1031078	0.000000	0.000000	0.089000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Endrin	72208	0.000000	0.000000	0.000036	0.000086	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
Endrin aldehyde	7421934	0.000000	0.000000	0.000300	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Heptachlor	76448	0.000000	0.000000	0.000000	0.000520	0.00%	0.00%	No Data	0	None	None	HH Fish	Acute
Heptachlor epoxide	1024573	0.000000	0.000000	0.000000	0.000520	0.00%	0.00%	No Data	0	None	None	HH Fish	Acute
Polychlorinated Biphenyls (PCBs)		0.000000	0.000000	0.000000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Toxaphene	8001352	0.000000	0.000000	0.000000	0.000730	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
1,2,4,5-Tetrachlorobenzene	95943	0.000000	0.000000	0.001100	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
2-methyl-4,6-dinitrophenol	534521	0.000000	0.000000	0.019022	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
2,4-D	94757	0.000000	0.000000	4.491485	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
2,4,5-TP (Silvex)	93721	0.000000	0.000000	0.014632	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
2,4,5-trichlorophenol	95954	0.000000	0.000000	2.633766	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Asbestos	1332214	0.000000	0.000000	449,148.490972	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Benzo(b)fluoranthene	205992	0.000000	0.000000	0.000018	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Bis(2-chloroethyl)ether	111444	0.000000	0.000000	0.000530	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Bis(chloromethyl)ether	542881	0.000000	0.000000	0.000000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Chloropyrifos	2921882	0.000000	0.000000	0.000041	0.000083	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
Chromium (III)	16065831	0.000000	0.000000	0.086180	1.803049	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
Chromium (VI)	18540299	0.000000	0.000000	0.011000	0.016000	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
Demeton	8065483	0.000000	0.000000	0.000100	NA	0.00%	0.00%	No Data	0	None	None	Chronic	NA
Dinitrophenols	25550587	0.000000	0.000000	0.100961	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Guthion	86500	0.000000	0.000000	0.000010	NA	0.00%	0.00%	No Data	0	None	None	Chronic	NA
Hexachlorocyclo-hexane-Technical	319868	0.000000	0.000000	0.000041	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Hydrogen Sulfide, Undissociated	7783064	0.000000	0.000000	0.002000	NA	0.00%	0.00%	No Data	0	None	None	Chronic	NA
Malathion	121755	0.000000	0.000000	0.000100	NA	0.00%	0.00%	No Data	0	None	None	Chronic	NA

Permit No.: KY0094706  
AI No.: 3980  
Fact Sheet Attachment A  
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**STEADY STATE TOXICS WASTELOAD ALLOCATION MODEL (SSTWAM2004) – REASONABLE POTENTIAL ANALYSIS – OUTFALL 001**

[illegible]

# KPDES



## KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

# PERMIT

PERMIT NO.: KY0094706  
AI NO.: 3980

### AUTHORIZATION TO DISCHARGE UNDER THE KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

Pursuant to Authority in KRS 224,

Pilot Travel Centers, LLC  
5508 Lonas Road  
Knoxville, Tennessee 37909

is authorized to discharge from a facility located at

Pilot Travel Center No. 046  
2929 Scottsville Road  
Franklin, Simpson County, Kentucky

to receiving waters named

Unnamed tributary of West Fork Drakes Creek via sinkhole at latitude 36-42-59  
and longitude 86-31-30.

in accordance with effluent limitations, monitoring requirements and other conditions  
set forth in Parts I, II, III and IV hereof. The permit consists of this cover  
sheet, Part I 2 pages, Part II 1 page, Part III 1 page, and Part IV 3 pages.

This permit shall become effective on

This permit and the authorization to discharge shall expire at midnight,

                      
Date Signed

Sandra L. Gruzesky, Director  
Division of Water

## PART I A - EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the effective date of this permit and lasting through the term of this permit, the permittee is authorized to discharge from Outfall serial number: 001 - Storm water runoff and diesel island rinse water.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTICS</u>	<u>DISCHARGE LIMITATIONS</u>				<u>MONITORING REQUIREMENTS</u>	
	(lbs/day) <u>Monthly Avg.</u>	<u>Daily Max.</u>	Other Units (Specify) <u>Monthly Avg.</u>	<u>Daily Max.</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow (MGD)	Report	Report	N/A	N/A	1/Month	Grab
Total Suspended Solids	N/A	N/A	30 mg/l	60 mg/l	1/Month	Grab
Oil & Grease	N/A	N/A	10 mg/l	15 mg/l	1/Month	Grab
Total Recoverable Zinc	N/A	N/A	N/A	0.12 mg/l	1/Month	Grab
pH (standard units)	N/A	N/A	6.0 (min)	9.0 (max)	1/Month	Grab

The abbreviation N/A means Not Applicable.

There shall be no discharge of floating solids or visible foam or sheen in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: nearest accessible point prior to discharge to or mixing with the receiving waters or wastestreams from other outfalls.



**PART I B - SCHEDULE OF COMPLIANCE**

The permittee shall achieve compliance with all requirements on the effective date of this permit.

DRAFT

**PART II - STANDARD CONDITIONS FOR KPDES PERMIT**

This permit has been issued under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits or licenses required by this Cabinet and other state, federal, and local agencies.

It is the responsibility of the permittee to demonstrate compliance with permit parameter limitations by utilization of sufficiently sensitive analytical methods.

The permittee is also advised that all KPDES permit conditions in KPDES Regulation 401 KAR 5:065, Section 1 will apply to all discharges authorized by this permit.

DRAFT

## **PART III - OTHER REQUIREMENTS**

### **A. Reporting of Monitoring Results**

Monitoring results obtained during each monitoring period must be reported on a preprinted Discharge Monitoring Report (DMR) Form that will be mailed to you. The completed DMR for each monitoring period must be sent to the Division of Water at the address listed below (with a copy to the appropriate Regional Office) postmarked no later than the 28th day of the month following the monitoring period for which monitoring results were obtained.

Division of Water  
Madisonville Regional Office  
Madisonville State Office Bldg.  
625 Hospital Drive  
Madisonville, Kentucky 42431-1683  
ATTN: Supervisor

Energy and Environment Cabinet  
Dept. for Environmental Protection  
Division of Water/Surface Water Permits  
Branch  
200 Fair Oaks Lane  
Frankfort, Kentucky 40601

### **B. Reopener Clause**

This permit shall be modified, or alternatively revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under 401 KAR 5:050 through 5:086, if the effluent standard or limitation so issued or approved:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
2. Controls any pollutant not limited in the permit.

The permit as modified or reissued under this paragraph shall also contain any other requirements of KRS Chapter 224 when applicable.

### **C. Outfall Signage**

The KPDES permit establishes monitoring points, effluent limitations, and other conditions to address discharges from the permitted facility. In an effort to better document and clarify these locations the permittee should place and maintain a permanent marker at each of the monitoring locations.

## **PART IV - BEST MANAGEMENT PRACTICES**

### **SECTION A. GENERAL CONDITIONS**

#### **1. Applicability**

These conditions apply to all permittees who use, manufacture, store, handle, or discharge any pollutant listed as: (1) toxic under Section 307(a)(1) of the Clean Water Act; (2) oil, as defined in Section 311(a)(1) of the Act; (3) any pollutant listed as hazardous under Section 311 of the Act; or (4) is defined as a pollutant pursuant to KRS 224.01-010(35) and who have ancillary manufacturing operations which could result in (1) the release of a hazardous substance, pollutant, or contaminant, or (2) an environmental emergency, as defined in KRS 224.01-400, as amended, or any regulation promulgated pursuant thereto (hereinafter, the "BMP pollutants"). These operations include material storage areas; plant site runoff; in-plant transfer, process and material handling areas; loading and unloading operations, and sludge and waste disposal areas.

#### **2. BMP Plan**

The permittee shall develop and implement a Best Management Practices (BMP) plan consistent with 401 KAR 5:065, Section 2(10) pursuant to KRS 224.70-110, which prevents or minimizes the potential for the release of "BMP pollutants" from ancillary activities through plant site runoff; spillage or leaks, sludge or waste disposal; or drainage from raw material storage. A Best Management Practices (BMP) plan will be prepared by the permittee unless the permittee can demonstrate through the submission of a BMP outline that the elements and intent of the BMP have been fulfilled through the use of existing plans such as the Spill Prevention Control and Countermeasure (SPCC) plans, contingency plans, and other applicable documents.

#### **3. Implementation**

If this is the first time for the BMP requirement, then the plan shall be developed and submitted to the Division of Water within 90 days of the effective date of the permit. Implementation shall be within 180 days of that submission. For permit renewals, the plan in effect at the time of permit reissuance shall remain in effect. Modifications to the plan as a result of ineffectiveness or plan changes to the facility shall be submitted to the Division of Water and implemented as soon as possible.

#### **4. General Requirements**

The BMP plan shall:

- a. Be documented in narrative form, and shall include any necessary plot plans, drawings, or maps.
- b. Establish specific objectives for the control of toxic and hazardous pollutants.
  - (1) Each facility component or system shall be examined for its potential for causing a release of "BMP pollutants" due to equipment failure, improper operation, natural phenomena such as rain or snowfall, etc.

- (2) Where experience indicates a reasonable potential for equipment failure (e.g., a tank overflow or leakage), natural condition (e.g., precipitation), or other circumstances which could result in a release of "BMP pollutants," the plan should include a prediction of the direction, rate of flow, and total quantity of the pollutants which could be released from the facility as result of each condition or circumstance.

- c. Establish specific Best Management Practices to meet the objectives identified under paragraph b of this section, addressing each component or system capable of causing a release of "BMP pollutants."
- d. Include any special conditions established in part b of this section.
- e. Be reviewed by plant engineering staff and the plant manager.

5. **Specific Requirements**

The plan shall be consistent with the general guidance contained in the publication entitled "NPDES Best Management Practices Guidance Document," and shall include the following baseline BMPs as a minimum.

- a. BMP Committee
- b. Reporting of BMP Incidents
- c. Risk Identification and Assessment
- d. Employee Training
- e. Inspections and Records
- f. Preventive Maintenance
- g. Good Housekeeping
- h. Materials Compatibility
- i. Security
- j. Materials Inventory

6. **SPCC Plans**

The BMP plan may reflect requirements for Spill Prevention Control and Countermeasure (SPCC) plans under Section 311 of the Act and 40 CFR Part 151, and may incorporate any part of such plans into the BMP plan by reference.

7. **Hazardous Waste Management**

The permittee shall assure the proper management of solid and hazardous waste in accordance with the regulations promulgated under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1978 (RCRA) (40 U.S.C. 6901 et seq.) Management practices required under RCRA regulations shall be referenced in the BMP plan.

8. **Documentation**

The permittee shall maintain a description of the BMP plan at the facility and shall make the plan available upon request to EEC personnel. Initial copies and modifications thereof shall be sent to the following addresses when required by Section 3:

Division of Water  
Madisonville Regional Office  
Madisonville State Office Bldg.  
625 Hospital Drive  
Madisonville, Kentucky 42431-1683  
ATTN: Supervisor

Energy and Environment Cabinet  
Dept. for Environmental Protection  
Division of Water/Surface Water Permits  
Branch  
200 Fair Oaks Lane  
Frankfort, Kentucky 40601

9. **BMP Plan Modification**

The permittee shall amend the BMP plan whenever there is a change in the facility or change in the operation of the facility which materially increases the potential for the ancillary activities to result in the release of "BMP pollutants."

10. **Modification for Ineffectiveness**

If the BMP plan proves to be ineffective in achieving the general objective of preventing the release of "BMP pollutants," then the specific objectives and requirements under paragraphs b and c of Section 4, the permit, and/or the BMP plan shall be subject to modification to incorporate revised BMP requirements. If at any time following the issuance of this permit the BMP plan is found to be inadequate pursuant to a state or federal site inspection or plan review, the plan shall be modified to incorporate such changes necessary to resolve the concerns.

**SECTION B. SPECIFIC CONDITIONS**

**Periodically Discharged Wastewaters Not Specifically Covered By Effluent Conditions**

The permittee shall include in this BMP plan procedures and controls necessary for the handling of periodically discharged wastewaters such as intake screen backwash, meter calibration, fire protection, hydrostatic testing water, water associated with demolition projects, etc.